

World TB Day: resistant tuberculosis is hard to detect

The Rwanda Biomedical Centre and ITM discover false resistance problem of tuberculosis

24-03-21



Dit is de omschrijving

Recognising rifampicin resistance is much faster and easier today than it was ten years ago. Molecular tests give a result in two hours, whereas in the past it used to take at least three months. This means that tuberculosis patients can start effective treatment more quickly, which reduces the risk of death. But these molecular tests are not flawless and sometimes miss drug-resistant tuberculosis or give false drug-resistant results.

Claude Semuto, PhD student at ITM in Antwerp and researcher at the National Tuberculosis Reference Laboratory in Kigali, Rwanda, found that patients with few bacteria in their coughed-up sputum were particularly at risk of being mistakenly treated for rifampicin resistant TB. The false resistant diagnosis led to antibiotic treatment without rifampicin, a 'second-line treatment' of longer duration with drugs with more side effects. His findings led to changes in national guidelines in Rwanda. Further research focuses on how to further improve the diagnosis of resistance to rifampicin and other anti-tuberculosis drugs so that patients can receive the right treatment immediately. As the World Health Organisation's TB Supranational Reference Laboratory - Coordinating Center, ITM plays a significant role in this by ensuring quality control for an international network of tuberculosis laboratories.

Tuberculosis, a relatively slow-onset infectious disease that usually causes inflammation of the lungs, is transmitted through coughing or sneezing. About a quarter of the world's population has been infected with tuberculosis at some point, with 10 million people developing the active disease each year. ITM has many years of experience in tuberculosis research. Scientists made a major breakthrough by developing a shorter treatment for multi-resistant tuberculosis. The Institute also houses the world's largest collection of tuberculosis strains.